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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,352	02/27/2006	Albert Schomig	17601.55A.1.1	5048
57360 7590 11/09/2009 WORKMAN NYDEGGER 1000 EAGLE GATE TOWER, 60 EAST SOUTH TEMPLE SALT LAKE CITY, UT 84111				
EXAMINER				
GANESAN, SUBA				
ART UNIT		PAPER NUMBER		
3774				
MAIL DATE		DELIVERY MODE		
11/09/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/528,352

**Applicant(s)**

SCHOMIG ET AL.

**Examiner**

SUBA GANESAN

**Art Unit**

3774

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-6,21-28 and 31-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,21-28,31-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 7/6/2009 have been fully considered but they are not persuasive. Applicant argues that Sirhan lacks a polymer free external drug coating on the stent, and Thompson and Callol fail to cure this deficiency. Examiner disagrees. Sirhan teaches the use of polymer coatings as an optional feature of the stent. Fig. 3 is a stent described as being metallic, and in one embodiment the stent body is the direct source of the therapeutic agent (para. 146). The rate-controlling element material can be metallic (para 118). This enables one of ordinary skill in the art to select a metallic stent that elutes therapeutic material without a polymeric layer.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-6, 21-28, and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sirhan et al. (U.S. P.G. Pub. No.: 2002/0082679) in view of Thompson (U.S. Pat. No. 6,254,631), further in view of Callol et al. (U.S. Pat. No.: 6174329).

3. Sirhan discloses a stent system comprising a stent with a roughened exterior surface for coating with a drug (para 122, 177). The drug can be tacrolimus (para 30) and the stent is a stainless steel material (para 177). The stent is delivered using a

balloon catheter (para 143). Sirhan is silent as to whether both surfaces of the stent are roughened. However, Sirhan teaches the use of therapeutic agent on both the outer and luminal surface of a stent (para 25) as well as roughening as a means for coating a metal surface with a drug (para 177). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided both the outer and luminal surfaces of a stent with a roughened surface for the purpose of providing therapeutic agents on the luminal and outer surfaces.

4. Sirhan does not appear to disclose roughening the side surfaces in addition to the exterior stent surface. Thompson teaches the use of roughened inner and side stent surfaces (see abstract and fig. 4) for the purpose of preventing relative motion between the stent and the delivery balloon (col. 3 lines 10-46). Therefore it would have been obvious to one of ordinary skill in the art to modify the stent of Sirhan to include roughened inner and side surfaces as taught by Thompson for the purpose of allowing the stent to better grip the delivery balloon.

5. Sandblasting with sand, glass beads, or corundum is considered a product-by-process limitation that is not given patentable weight in the absence of distinguishing structure (See MPEP 2113).

6. Alternatively, Callol teaches the use of sandblasting as a suitable means for roughening a stent surface (col. 7 lines 23-27) in order to improve adhesion between layers. Therefore, if not inherent in Sirhan, it would have been obvious to utilize sandblasting as the means to roughen the stent surface for the purpose of improving adhesion between the stent surface and the therapeutic agent.

7. Claims 33-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sirhan et al. (U.S. P.G. Pub. No.: 2002/0082679) in view of Thompson (U.S. Pat. No. 6,254,631) and Callol et al. (U.S. Pat. No.: 6174329), as applied supra, further in view of Jacobs et al. (U.S. Pat. No.: 6387123)

8. Sirhan in view of Thompson and Callol is explained supra. However, the combination lacks specific teaching for annealing the surface of the stent. Jacobs teaches annealing the surface of a stent to improve layer adhesion (col. 5 lines 35-40) and creating a grain structure that increases the strength of the stent (col. 5 line 65- col. 6 line 2). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have annealed the stent of Sirhan in view of Thompson and Callol as taught by Jacobs for the purpose of improving adhesive strength between layers and improving the strength of the stent.

9. Note that with respect to claims 37-38, it is considered inherent that sandblasting particles comprise sand and that the annealed exterior surface includes sandblasting particles, by virtue of the sandblasting used to roughen the stent.

#### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUBA GANESAN whose telephone number is (571)272-3243. The examiner can normally be reached on M-F 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on 571-272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Matthews/  
Primary Examiner, Art Unit 3774

/S. G./  
Examiner, Art Unit 3774